

REMARKS

Remaining in the case is Claim 26 with dependent Claims 27-29 and 31; Claim 32 with dependent Claims 34 through 38; and Claim 39 with dependent Claims 40 and 41.

The claims as initially presented have been rejected by Examiner Wilson under 35 U.S.C. § 112 as failing to comply with the enablement requirement and as being indefinite. Reconsideration of the rejection is requested. Examiner Wilson states that “Claims 31, 34, 35 and 41 contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It is not clear how piezoelectric and laser energy can be sound energy.” Piezoelectric energy is that created when a voltage is applied across a piezoelectric crystal to cause the crystal to vibrate. Piezoelectric crystals are commonly used as a source of sonic energy. As an example, substantially all sonar devices, such as fish locating devices, use piezoelectric energy to generate sound waves that travel through water, echoes therefrom being used to indicate the presence of fish, underwater objects and so forth. Therefore it is not understood as to why there is a question about the piezoelectric phenomena being a source of energy.

The examiner also questioned “laser energy.” Lasers are used to cut steel, to perform surgery and for multiple other applications that require energy.

The second rejection is on grounds of indefiniteness. Examiner Wilson states, “It is inaccurate to describe piezoelectric and laser energy as being sound energy.” Objection is taken to this position for the reason stated above. Piezoelectric crystals are a common source of sound energy, and as indicated above, lasers are frequently employed as a source of energy.

Claims 26, 30, 32, 33, 39 and 40 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Malmin. To more fully distinguish the invention over Malmin, the parent claims have been rewritten. As rewritten, Claim 26 relates to a method of filling an endodontically prepared root canal of a tooth employing the step of “applying filler material to the external surface of a distal portion of an elongated structural shaft.” This concept is not taught or suggested by Malmin. Malmin teaches the use of gutta percha cones or plugs and does not teach applying filler material to an elongated structural shaft as called for in the claims. At no place in Malmin is there teaching of filling an endodontically prepared root canal utilizing a structural shaft having filler material affixed thereto such as shown in Figures 2, 5, 6, 9 and 10 of the application herein. Applicant’s invention, as has been carefully described herein, is concerned primarily with the concept of inserting an obturator into a prepared root canal in the form of an elongated shaft having a proximal and a distal portion and in which the distal portion has filler material applied to the shaft by which the filler material is inserted into the root canal. In applicant’s invention the shaft can remain in the tooth root canal as a part of the endodontic procedure, the proximal portion being severed and removed. As specifically provided in this application, previously issued Patents 4,758,156 and 4,894,001 are incorporated by reference. For convenience, copies of these two United States patents are attached. These patents teach the use of an endodontic obturator for filling a root canal.

The patent to Malmin does not contemplate the concept of filling an endodontically prepared root canal using an obturator having the filler material secured to the external surface thereof and in which the obturator along with the filler material can be left in the root canal or, optionally, the shaft can be removed. This concept is completely lacking in Malmin.

Parent claims 26, 32 and 39 have been revised to emphasize this unique aspect of Applicant's invention. After the shaft having the filler material thereon is placed into a root canal, the shaft can be heated or vibrated or otherwise subjected to energy to reduce the surface tension. The shaft may then be optionally removed. A common technique employed in filling root canals is to insert a shaft distal portion having filler material thereon into the root canal and then severing the shaft leaving the distal portion and filler material to fill the root canal.

Claims 29 and 35 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Malmin in view of Crovatto. Claim 29 refers to the use of a shaft that is formed of plastic or fiberglass. Malmin and Crovatto combined do not teach the subject matter of Claim 29 which depends from Claim 26. Claim 26 teaches the concept of applying filler material to the external surface of a distal portion of an elongated structural shaft, etc., not taught by either Malmin or Crovatto. Crovatto relates only to positioning a plug in a root canal and is not concerned with filling the root canal. There is no teaching in Crovatto of applying filler material to the external surface of the distal portion of an elongated shaft and subsequently applying energy to the shaft to cause the filler material to fill the root canal or optionally to allow the shaft to be removed.

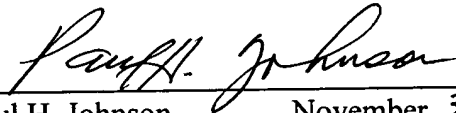
Finally, Examiner Wilson has rejected Claims 31, 34 and 41 under 35 U.S.C. § 103(a) as being unpatentable under Malmin in view of Ruddle. It is the examiner's position that Malmin shows the structure as described, however, does not show the use of piezoelectric energy. The examiner states that Ruddle teaches that it is known to use piezoelectric energy as an alternative for creating vibration and that it would be obvious to include piezoelectric energy as shown by Ruddle in order to make use of other forms of energy supplied to an endodontic file. Reconsideration of this rejection is requested. Neither Malmin nor Ruddle teach the concept of the three independent claims, each of which includes the step of "applying filler material to the

external surface of the distal portion of an elongated structural shaft, etc. As discussed above, since this basic concept is not taught or suggested in either of these two references nor in any possible combination of them, the rejection of the claims based on the combination of Malmin and Ruddle seems insupportable.

Enclosed herewith is a Terminal Disclaimer as required by Examiner Wilson. Please charge the fee in the amount of \$55.00 for the Terminal Disclaimer to Deposit Account No. 50-1971.

The Commissioner is hereby authorized to debit any additional fees which might be due under 37 C.F.R. 1.16 or 1.17 to undersigned's Deposit Account No. 50-1971.

Respectfully submitted,



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